



# LAUREA

# The marketing possibilities of service-concept working time attendance solutions

## Case: Tamtron solutions Oy



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This research was prepared on behalf of Tamtron Solutions Oy to inspect the marketing prospects and customer interest in the new working time attendance solutions. The topic for the research was received from the marketing manager of the company, Mikko Levälä, at the end of the year 2008, and the research was initiated immediately.

The main information gathering tool of the research was an e-mail survey sent to the business customers of Tamtron solutions Oy, and after this, a selected group of respondents were interviewed via telephone. An e-mail survey was chosen because of the large volume and diversity of the target group.

The target objective of the research was to gather at least 30 e-mail answers in addition to two interviews, of which only the first was successfully accomplished. Only 25 answers arrived, and this was accomplished only after a number of prospective customers had been added to the research target group. The addition was considered acceptable because of the including of the prospective customers into the customer target group of the new working time attendance solutions.

The results of the survey lead to a conclusion, that the marketing of the new working time attendance solutions, as they were described in this thesis, was not considered profitable enough to the company, based on the customers' negative reaction towards the service-concept of the new solutions. Hopefully the research has helped Tamtron Solutions Oy to evaluate its future challenges, however, as well as to perhaps alter the concept of the service-concept working time attendance solutions into a form which could better serve the working time attendance needs of the company's customers.

Keywords thesis, working time attendance, service-concept, marketing

Tommi Vihavainen

Palvelullistettujen työajanseurantaratkaisujen markkinointimahdollisuudet

Vuosi 2010

Sivumäärä 52

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Tämä tutkimus valmisteltiin ja toteutettiin Tamtron Solutions Oy:n toimeksiannosta, päämääränä oli tutkia uusien työajanseurantapalveluiden markkinointimahdollisuuksia sekä asiakkaiden mielenkiintoa näihin palveluihin. Tutkimuksen aiheen ideoi yrityksen markkinointijohtaja Mikko Levälä vuoden 2008 lopussa, ja tutkimusprosessi aloitettiin välittömästi.

Tutkimuksen primäärisenä tiedonkeruuvälineenä käytettiin Tamtron Solutions Oy:n yritysasiakkaille lähetettyä sähköpostikyselyä, minkä jälkeen valittuja, kyselyyn vastanneita asiakkaita haastateltiin puhelimen välityksellä. Sähköpostikysely valittiin tutkimuksen primääriseksi tiedonkeruuvälineeksi johtuen kohderyhmän suuresta koosta ja moninaisuudesta.

Tutkimuksen tavoite oli kerätä vähintään 30 sähköpostivastausta sekä kaksi puhelinhaastattelua, joista vain jälkimmäinen onnistuttiin saavuttamaan. Tutkimukseen vastasi vain 25 asiakasta, mikä teki mahdolliseksi myöhemmin tapahtunut Tamtron Solutions Oy:n valittujen, mahdollisten asiakkaiden (ns. prospektiasiakkaiden) lisääminen sähköpostikyselyn kohderyhmään. Kyseistä listasta pidettiin hyväksyttävänä johtuen prospektiasiakkaiden lisäämisestä uusien työajanseurantaratkaisujen kohdeasiakasryhmään.

Tutkimuksen tuloksista vedettiin johtopäätös, jonka mukaan uusien työajanseurantaratkaisujen markkinointi, siinä muodossa kuin se tutkimuksessa esiteltiin, ei tuottaisi Tamtron Solutions Oy:lle riittävästi voittoa johtuen asiakkaiden vastahakoisuudesta uusien ratkaisujen palvelumuo-  
toista toimintakonseptia kohtaan. Toivon mukaan tutkimus on avustanut Tamtron Solutions Oy:tä arvioimaan tulevia haasteitaan, sekä mahdollisesti muuntamaan uusien työajanseurantaratkaisujen konseptia muotoon, joka vastaisi paremmin yrityksen asiakkaiden työajanseurantarpeita.

Asiasanat opinnäytetyö, työajanseuranta, palvelullistaminen, markkinointi

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## Introduction

The following contains an introduction to the details of the research, the research scope, the choice of the research context, the objectives of the research, as well as the basic structure.

### 1.1 The scope of the research

The scope, or the area of operation, of the research was agreed to be the outer operating environment of Tamtron Solutions Oy, and to be more precise, the company's customer base from Years 2007-2009, including several thousand Finnish companies. The research was executed to study the company's external factors that would have an influence on the marketing possibilities of the new working time attendance solutions, and was undertaken in timeframe of 16.6.2008 - 12.2.2009.

Therefore, the research could be defined as an external research that was directed to the prospective customers of the new working time attendance solutions. To make the definition more accurate, the specific research context was chosen.

### 1.2 The choice of research context

The research context was chosen to be the customer base of Tamtron Solutions Oy from the aforementioned span of time, and this particular company was chosen as the executive of the research because of the years-long working history between the researcher and the employer company, as well as because the company showed interest in the research of the proposed research subject (namely the marketing possibilities of the new working time attendance solutions). In addition the early information gathering through internet and libraries showed that the aforementioned research subject had not been extensively researched on, at least when compared to other possible research topics under business-to-business marketing, a state of affairs which has had an affect on the interest of the researcher as well as the company.

At this stage of the research document, however, more information is to follow on the background information on the employer company, Tamtron Solutions Oy, as well as of the concept and nature of working time attendance in general.

Tamtron Solutions Oy is a subsidiary of Tamtron Oy. Founded in 1978, the company's branches of business are access control solutions, working time & attendance solutions and data collection

hardware and solutions. The company's product range includes different types of readers, terminals, card-readers, keys, concentrators and different personal identification tags. The company also provides training in the field of maintenance, sales, documentation as well as installation of working time attendance hardware, and the company's large customer base includes private corporations as well as public employers from Finland as well as abroad. (Tamron Solutions Oy homepage, accessed 1.6.2009)

In Finnish working life the working time legislation (605/1996) directs in example the sliding working time and how the Sunday work should be handled from the employer's perspective, and this law is enforced in Finland by working protection representatives. Working time attendance is thus required, in some form or another to collect information on the employees' working hours, and the possible working time attendance system itself often includes different programmes and solutions with which the employer collects data information on the before mentioned issues, and nowadays this data collection is most commonly done via identifier hardware instead of a pen and paper. The employer company, Tamtron Solutions Oy, has a pride and joy to deliver hardware for the aforementioned purposes to its customers around Finland as well as abroad. (Työajanseuranta webpage, accessed 1.6.2009)

Tamtron Solutions Oy offers a high-quality, reliable and highly tailored service to the specific needs and the changing requirements of working time attendance in the customer company. With the company's motivated and competent workforce and the latest technology available, Tamtron Solutions Oy is able to offer reliable and safe solution models to any operation environment, which is further guaranteed by the AAA-Quality classification of the mother company, Tamtron Oy. (Tamron Solutions Oy homepage, accessed 1.6.2009)

More specific information can be found from the company website, which contains information on working time attendance products and services the company supplies.

### 1.3 The objectives of the research

The research had a number of objectives which can be divided into one main objective and several sub-objectives, which, in turn, were divided into primary, secondary and tertiary objective levels, according to the specific level of information that they supplied to the research. This was done to ease the identification of different information levels, and the relations between them.

The main objective of the research was to research the marketing possibilities of new working time attendance solutions, or in other words, to research how and why the new service-concept working time attendance solutions could be most effectively marketed to the customers of the company, as the main purpose of the research, besides proving the research capability of the researcher to Laurea University as a thesis, was to support the executive company's business processes of new service development and the marketing, which would most likely operate with the new working time attendance solutions.

It should be noted, however, that the objective in question is closely related to the primary sub-objective (see below) and thus practically determines the validity of the research hypothesis, although the research hypothesis is determined first in this particular research because of the objective's status as a primary sub-, not primary, research objective.

The primary sub-objective of the research was to confirm the validity or invalidity of the research hypothesis, and therefore to determine the possibilities of the executive company to market service-concept working time attendance solutions to the company's customers, and this was done to support the main objective, as the research hypothesis relating to the concept of the new working time attendance solutions would determine if the company would be able to market the concept, and in what form (although this question is more closely related to the main objective than the hypothesis itself).

It should be noted, however, that this objective includes only the possibilities and conditions that are not determined by the inner conditions and the business actions of the executive company, as the research was targeted specifically to the customers of the company, not to the company employees. Thus the question of research hypothesis and the general marketing possibilities does not include the inter-company factors at all.

The secondary sub-objectives of the research, being second in importance to the primary sub objective mentioned above, but yet supporting it and providing information on the research of the higher level objectives, were to inspect the customers' trust into the company, their general reaction towards working time attendance, working time and the new working time attendance solutions. These objectives relate to the marketing possibilities of the new working time attendance solutions, and should therefore be taken into account when evaluating the results of the research, as they also relate to the key features of the new working time attendance solutions.



The tertiary sub-objectives of the research were defined to be the analysis and research on the larger sub-contexts of the issues included in the secondary sub objectives. These include the customers' reaction towards, for example, the company, the advantages of efficient working time attendance, general working time and working time errors, the outsourced working time attendance, internet-based working time attendance, the merging of time attendance and salary accounting processes, as well as the effects of the current economic crisis on the purchase of working time attendance solutions. This research was required to produce reliable data on the target group's reaction towards the research issues, and ultimately, the relation of the aforementioned to the research hypothesis, and therefore the research was included in this thesis study.

The following graph contains the aforementioned research objectives in a graphical form.

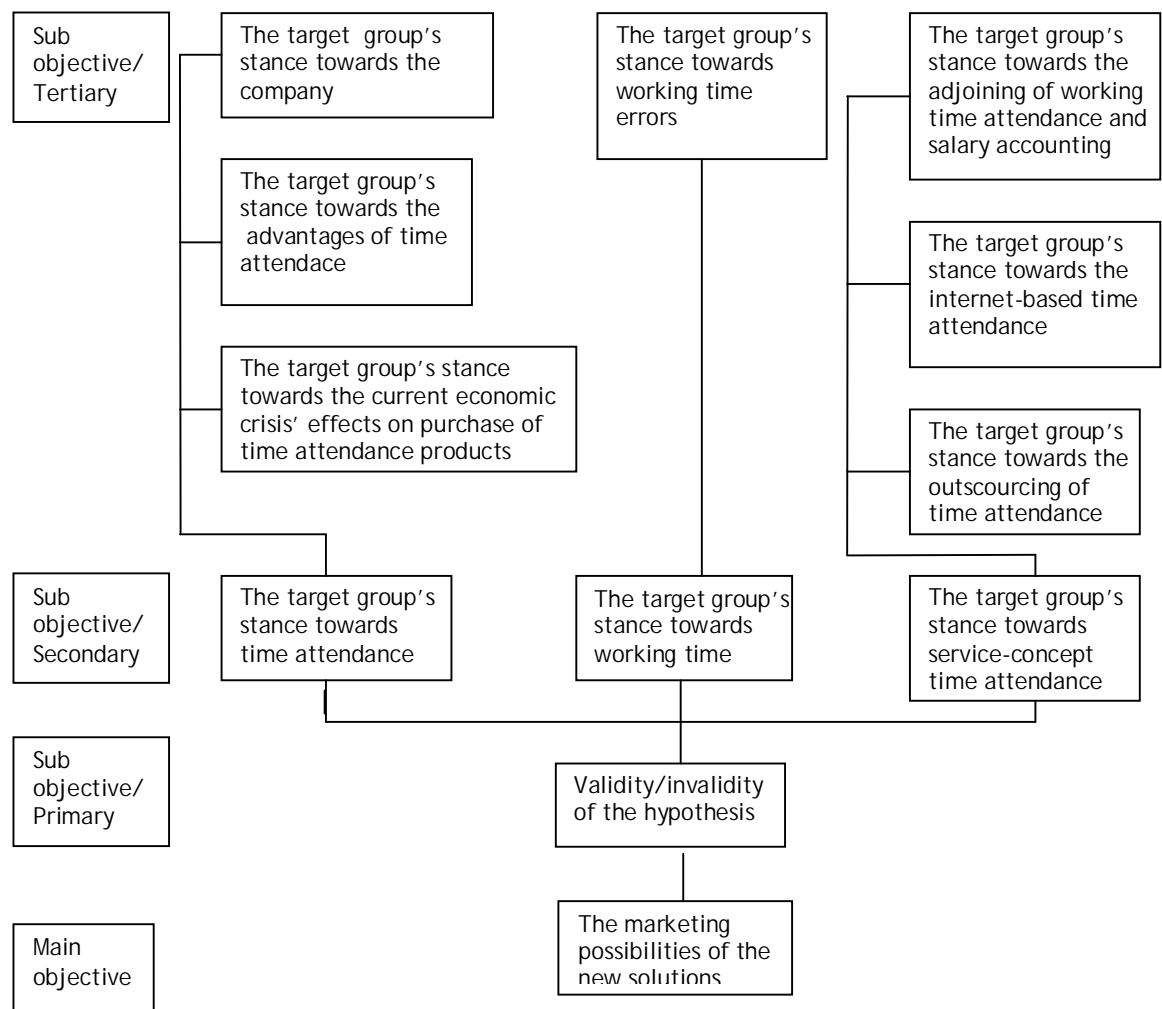


Figure 1. The research objectives in a graphical form

#### 1.4 The structure of the research

The structure of the research is composed of four phases, which were the research planning, the target group data gathering, the execution and the analysis. The first of these phases contained the forming of a research plan and the main structure of the research, as well as the decision on the research objectives and the hypothesis. This phase was necessary for the succeeding of the following ones, and thus created an important basis for the upcoming theory and gave direction to the data gathering that was executed in the next phase.

In this second phase, the target group data gathering, the customer data submitted by Tamtron Solutions Oy was used to form suitable sized groups for the posting of e-mail surveys, to which contact information was then collected (i.e. the e-mail addresses and telephone numbers for the interviews). This phase also included the removal of some customers from the target group because their contact information was either too old to be usable for contact purposes or unavailable, thus making the sending of the survey impossible.

In the third and final phase, the execution phase, the e-mail surveys were sent and the incoming responses were written down into an Excel-file (see Figure 6.) Of these an average was calculated, which helped to see the correlations needed in the analysis phase. A table containing these results and correlations can be found in the Results section.

In this phase the averages were also gathered into one table, as mentioned above, and the correlations found in the research were analysed in relation to the research objectives and the marketing possibilities of service-concept working time attendance solutions. More information on these correlations and their relations to the research objectives in general can be found in the Conclusions section.

## 2 Theoretical background

The following section contains theoretical background and earlier research concerning the subject of the new working time attendance solutions, as well as the research hypothesis formed in the planning phase. First the detailed description of the new working time attendance solutions (hereafter also referred to as "service-concept working time attendance solutions), the marketing possibilities of which are studied in this research.

## 2.1 Service-concept working time attendance solutions

The term service-concept working time attendance solutions means a general concept, in which a new, adapted concept is sought to replace the concept of traditional working time attendance, a concept in which the key factors would be the outsourcing of the customers' working time attendance processes and the co-operation between the companies offering working time attendance solutions and companies offering salary accounting. Therefore the term in question could be determined as a new and more package-formed service concept that is still under development.

An example of the relationship between the service-concept working time attendance solutions determined above and the current working time attendance solutions is to follow. In the current system (see graph below) Tamtron Solutions Oy is only responsible of selling, delivery and maintenance of the working time attendance system, or in other words, of ensuring that the right products and solutions are delivered into right address, and operate as the customer desires them to. That is where the company's responsibility usually ends.

The maintenance of the data formed by the employer's working time stampings (the employee's act of inputting their working time information into a working time attendance system, usually via a stamping terminal), collected via the products and solutions mentioned above, and the sending of this data to the body responsible for the customer company's salary accounting (which could be the customer company's accounting department or a private company handling the salary accounting of a several other companies) are at the responsibility of the customer. This responsibility can also include separating different work phases (since some phases may include different workers or different salary amounts), receiving and confirming the salary information to be correct and the necessary final phase of paying the salaries to the employees who accomplished their work.

This model can, however, lead into several problematic situations, which create unnecessary stress to the customer company. Sometimes the employees may forget to stamp themselves in, or then they can stamp themselves in by an incorrect manner, which can be understandable, as in most systems a simple press of a wrong button or forgetting to show the identifier key tag to the stamping terminal is enough to create false data.

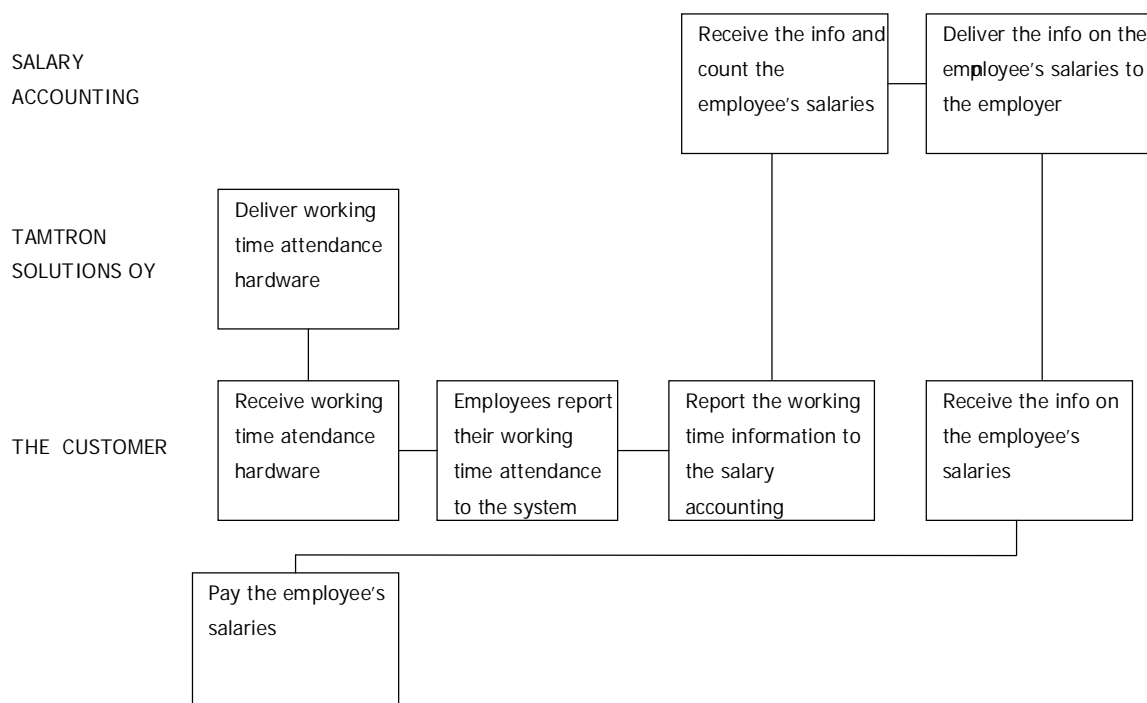


Figure 2. The model of current working time attendance solutions

However, these mistakes oblige the customer company to spend time and energy to correct these mistakes, usually resulting in large investments and frustration if the error has been affecting the data for a long period of time (in addition to the dissatisfaction of an individual employee whose salary is affected by the mistake). The current model does not support the planning of different work phases either, which may include different employees and salary models, or the project work, where the employees work in different places at different times, or mobile workforce, for example consultants or housebuilders. In other words, the current systems do what they are designed to do if their operation requirements are met perfectly, but the problem itself is the narrow conditions of these requirements, which might not be flexible enough to meet the specific requirements of modern working life and the changing working conditions. Thus, the model of service-concept working time attendance solutions was formed.

This model of service-concept working time attendance solutions (see the graph below) is aimed to offer efficient solutions for the problems mentioned above. In this particular model, Tamtron Solutions Oy would deliver the working time attendance hardware, in a same manner as in the old

model, but the only phases that would remain in the customer's responsibility would be the making of working time stampings into an internet-based stamping programme (instead of a stamping terminal, if the customer so desires) and sending the aforementioned working time data to the service provider, possibly through an automatic system, whose responsibility would be to administer and maintain the data, whereas in the current model, this responsibility belongs to the customer company.

After the collection and administrating of the working time data described above, the service provider would send the data to an adjoined and co-operating salary accounting company, which would then, in turn, pay the customer company's employees' salaries directly to their bank accounts, without any action required from the customer company, aside of a monthly or annual maintenance cost, which would also cover the salaries that the accounting company pays to the customer company's employees. Thus the customer would receive a fully outsourced and efficient working time attendance and salary accounting service for a monthly or an annual fee.

The previous can be found in graphical form from the graph in the next page.

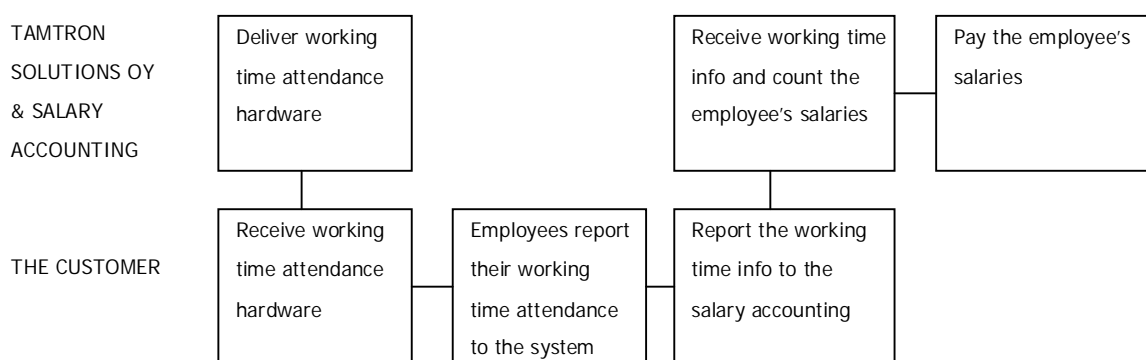


Figure 3. The model of service-concept working time attendance solutions

It should be noted in the end of this section, however, that service-concept working time attendance solutions are neither existing nor perfectly defined, inflexible working models. The solutions in question could more accurately be defined as developing and flexible systems that can be adapted to different situations and customer needs, as the company can use them as a tool in the development of better working time attendance services. The new working time attendance solutions do not exist yet, and this is partly the reason why their marketing possibilities are studied in this research, to inform the company whether the possible development and marketing of the

aforementioned solutions would return sufficient profit, and more importantly, how this profit could be maximised in the possible development and marketing process, and with working time attendance solutions possessing which kind of technical properties.

As the difference between the current and service-concept working time attendance solutions has been clarified, the next item in the document is the basic theory associated with the research.

## 2.2 Basic theory

The following contains the theoretical terms that are closely linked to the concept of service-concept working time attendance solutions, and thus also to the e-mail survey sent to the target group (See Figure 6). More information on the connection between these and the empirical research itself can be found from the empirical research section.

At the general level, the objective of the survey was to gather the required information from the right persons (in this case from the persons responsible to the purchase of working time attendance hardware), and by using terminology and a format that the persons in question understand. According to Bacon & Butler, this is a key component in any successful survey.

Concerning the first questions of the survey, the following section begins with the concepts of trust and satisfaction.

## 2.3 Trust and satisfaction

The questions one, two and three were included into the e-mail survey to measure the customer company's trust into the products and services supplied by Tamtron Solutions Oy, because a high degree of trust in the company would create a good marketing basis to the service-concept working time attendance solutions. As the objective of the development of new working time attendance solutions would be to offer high-cost and high-quality and extensive service, the customer's trust into the company would be important, if not crucial, to ensure the customers' willingness to purchase such services as well as to be prepared to outsource working time attendance and salary accounting processes to use this new working time attendance service.

In addition, as John Quelch claims in his online article, the creation of a consistent brand image creates a sense of trust in the customers, and thus grants the company an effective protection

against low-price competitors. Therefore a positive image of the services of Tamtron Solutions Oy, as well as the trust in the products that the company delivers, would increase the marketing possibilities of the service-concept working time attendance solutions.

This trust between a corporate customer and a seller could be described as, or aided with, the strategy of permanent market orientation. This means that the seller company is organised around the needs of the customer company, which, if correctly implemented, greatly aids the seller to anticipate and fulfil the changing needs of the customer. What makes this orientation permanent is the consistency and non-changeability to a sales or product orientation. In the case of service-concept working time attendance solutions one could thus speak of a market orientation towards the customer company, which could under the right conditions be interpreted as a permanent orientation. This permanent condition would greatly help the employer company, the service-concept working time solutions provider, to nurture and maintain long-term, profitable customer relationships. (Bacon & Butler 1998, pages 15-16)

The questions one to three have been grouped as one body because of convenience and the writings of Bacon & Butler. In these writings they consider the grouping of questions to be a factor that eases answering the survey, and that specialised interviews, usually 10 interviews, also aid the researcher responsible for the survey to form a clearer conclusion of the results and their meaning to the research hypothesis. In this particular research the qualitative interviews were accomplished via telephone, but more information of that can be found from later research sections.

The next questions are to follow, namely the customer's perception of the advantages of efficient working time attendance processes, and whether the customers in general see value in investing in the development of their working time attendance processes.

#### 2.4 The perceived advantages of efficient working time attendance

The fourth and, to a lesser degree, the tenth question were added to the survey to measure the target group's reaction towards working time attendance services, or to the perceived advantages of efficient working time attendance (to be more precise). A positive reaction to the advantages would lead one to believe that the target group would be willing to purchase better serving and more efficient, if also more expensive, working time attendance systems and solutions, also including the service-concept working time attendance solutions, as one of the key features of the new solutions would be the presumption of the customers' willingness to invest

into new and very different working time attendance solutions, and the truthfulness of this presumption would increase the marketing possibilities of the new solutions, whereas understandably, the customers' unwillingness to see any advantage in the new and more efficient working time attendance solutions (and thus unwillingness to spend money on them) would reduce the marketing possibilities of the new solutions.

As the service-concept working time attendance solutions are a new product concept, or a new service-formed product concept, one could also consider the issues involved with the measurement of the new product's performance. According to Avlonitis & Papastathopoulous, this performance of a new product can be measured with three aspects, which are the number of sales, the new sales opportunities brought by the introduction of a new product and the product's effect on the market as a whole. In the case of service-concept working time attendance solutions, the main one of these aspects, from the customer's point of view, would be the first aspect (as the economic advantage is mentioned in the question itself), but the other two would also need to be taken into consideration in the lesser degree, because the question measures the perceived advantages of the efficient working time attendance on a general level as well, even if this is not mentioned in the question itself. From the company's perspective, all three would most likely need to be considered when regarding the marketing results of the new solutions, but in the planning phase represented by this research, they should be used as measurement methods of the future, rather than the present.

One could also consider the fourth question to measure the target group's reaction to the change in the field of company's working time attendance. This reaction measures the general willingness to change the company processes or purchase decisions based on the realistic self-criticism, feedback and experience, as this willingness is an effective protection against dogmatism and ineffectiveness that create faulty processes, since even the most effective solution, process or systems becomes inefficient over a long period of time. Service-concept working time attendance has been targeted specifically to the companies that possess old and inefficient working time attendance processes, and would thus be willing to invest capital to streamline these processes to increase their working efficiency, remove unnecessary, old processes and to improve the cost effectiveness of the old company processes in general. (Drucker & Maciarello 2006, page 181)

Also relating to the fourth question, one should note a research made by Robert Half Agency and published at the internet by Tippit Inc., as it reports that an average corporation's salary accounting includes errors that consist of approximately 1-8% of the company's gross salaries. Also, according to this research, these errors can be significantly reduced, if not completely termi-



nated, with an efficient and modern working time attendance system, which has a highly positive effect on the employees trust to the employer, as well as their satisfaction to their work in general. Therefore, if the survey reveals that the target group's stance is consistent with the aforementioned research, it would lead to believe that the target group would also be ready to invest on the said efficient and modern working time attendance solutions, including the service-concept working time attendance solutions. (Tippit Inc. webpage, accessed 12.9.2009)

The next section documents the issue of the employer's reaction on working time and efficiency in general.

## 2.5 The employer's reaction on working time and efficiency

Questions five and six measure the target group's general reaction towards working time and efficiency. One could also speak of an employer's trust into the employees' honesty in the making of working time stampings and the employer's opinion on the relationship between employees' working time and work efficiency. The target group's trust into the employees and the acceptance of minor mistakes in working time, provided that the work productivity does not diminish, would imply the target group's possible interest towards working time attendance solutions that give the employee more responsibility and freedom, such as service-concept working time attendance solutions.

This is because the new solutions provide flexibility in the making of working time stampings (as they can be inputted via any computer that has a working internet connection, by any person possessing the necessary passwords) but also thus give the customer company's employees more opportunities to intentionally make false stampings, by for example making stampings in such a way that it would seem that they had been working in their free time. Thus an employer that would not accept even the possibility of such actions would be uninterested in purchasing service-concept working time attendance solutions.

In case of efficiency, one could also mention a simple, three-phased formula, with which efficient managers can organise their work. First, they will inspect their time use, second remove the non-vital tasks, and third, will teach others to do the same. The most important issue in this process is not planning-based execution nor task-based execution, but time-based execution, which ultimately leads an individual to achieve more in a smaller time span than before. This inspection of time use and elimination of non-vital tasks is an essential aspect of the processes of working time attendance, or in this case, more efficient, new service-concept working time at-

tendance solutions, and a manager that would be willing to invest time and energy on developing these processes would be willing to consider the purchase of new service-concept working time attendance solutions. (Drucker & Maciarello 2006, page 14)

However, as the research is studying new, outsourced form of working time attendance, one should also study the concept of general outsourcing.

## 2.6 Outsourcing

The term outsourcing means, according to Fennia-Magazine, the action of removal of the processes that are not related to the company's core competencies, and hiring other companies who more competent to process, to manage and to supervise these processes, and the seventh and eight questions in the survey have been created to measure the target group's readiness for this removal in terms of working time attendance processes, or in other terms, the target group's readiness to outsource the working time attendance processes, perhaps to purchase service-concept working time attendance solutions.

The key question in outsourcing is focusing on one's company's core competencies, and in an attempt to answer this question, many office-based companies have already outsourced their personnel and processes. In general, these outsourcing actions are meant to lower the solid costs (the operation costs which are frequent both in timing and amount, such as research and development costs), as well as to receive better service from more specialised companies. (Fennia-Magazine 2006)

The purchase of a working time attendance system is an act of the described outsourcing in itself, at least in broad terms, but through service-concept working time attendance solutions the customers would be free to pursue even more comprehensive outsourcing actions that concern not only working time attendance, but salary accounting as well, and this particularly is the reason why the seventh question was added to the e-mail survey form. However, the expert interviewed in the Fennia Magazine article, Marja Toivonen, does indicate that each corporate manager has to determine herself whether to outsource or not, and what processes. According to her, the main principle in outsourcing is to consider the advantages of different corporate policies of protection of corporate information and the sharing of information, and despite the fact that ten years ago the protection policy was the more commonly implemented one, attitudes change. (Fennia-Magazine 2006)

The testing of Ms. Toivonen's theory was also considered important in the case of service-concept working time attendance solutions, especially when considering the marketing possibilities of the new service-concept working time attendance solutions, so therefore the target group's readiness to outsource would also be a positive sign to the marketing possibilities of the new solutions. (Fennia-Magazine 2006)

## 2.7 Salary accounting

Salary accounting is the branch of a company's accounting processes that processes the working time attendance data to count and in some cases also pay the employees' salaries, and it is common for a company's workforce to appreciate an efficient and operational salary accounting and accounting services (as any mistakes and faulty marking of an employee's salary data will have a direct result on her income, and naturally correcting such mistakes can often be a stressful and complex task, especially if the mistake has happened a long time ago, or if more than one mistake was made in the salary data processing) which can be tailored to operate under changing conditions, and thus nowadays many salary accounting processes have been outsourced into specialised accounting companies, allowing the customer company to focus on its core competencies, or in other words, allowing the company to focus on making profit instead of investing resources on correcting operational errors. (Itella webpage, accessed 1.6.2009)

The issue of co-operation between working time attendance and salary accounting companies is closely linked to the working concept of service-concept working time attendance solutions, therefore question nine was added to the survey to measure the target group's reaction to the more efficient co-operation between working time attendance and salary accounting, with a positive reaction being also a positive factor to the marketing possibilities of the service-concept working time attendance solutions. This is because of the presumption that a company that is seeking to increase the quality of co-operation between working time attendance and salary accounting processes would be ready to purchase working time attendance solutions that promote such an increase, such as service-concept working time attendance solutions. (Itella webpage, accessed 1.6.2009)

The question of the better co-operation between working time attendance and salary accounting is not a new one, however. For a period of time the working time attendance reports have been the most important confirmation on the correctness of employees' salary report data, thus giving the workforce a better possibility to correct potential mistakes in salary accounting functions.

If an employee has a certified working time attendance document as his support, instead of a mere vocal documentation and her own memory, she has a better possibility of correcting a mistake made in salary accounting, thus giving her a fair return from her work, and this reason is one of the main reasons why working time attendance has often been implemented in companies to begin with. (Vesimäki 2002, Työajanseuranta)

## 2.8 Earlier research

Earlier research on the service-concept working time attendance solutions were not found, as expected because of the new operation principle of the working time attendance service, but two earlier thesis studies and two journalistic articles that indirectly research the concept were found, however. The first of the articles has been published in Mark-magazine in 1993, and the second in Turvallisuus-magazine in 2002. The following contains the main observations of the articles and thesis studies quoted indirectly, both in writing and in a graphical form.

The first of the articles refers to an article published in Mark-magazine in 1993, dealing specifically on the issue of launching a new product line.

### 2.8.1 Mark-magazine 1993

The first of the articles refers to a research prepared on behalf of the Helsinki School of Economics by Iiro Rossi. According to the article, introduction communication is the most important of all marketing methods in the introduction of a new product in the market, because in case of a new product the customers' perception of the product as exquisite and new is of utmost importance. The marketing methods designed for new products differ essentially from the methods designed for existing products, because the customer has neither a positive nor a negative opinion on a new product. In case of a new product the marketing company does not need to follow old guidelines, but in turn, it has to create the brand without earlier research or experience on the customer preferences, and it is in this specific building process where introduction communication has an important role. (Mark-magazine 1993)

It should be noted, however, that the information and methods detailed in this research cannot be directly implemented into the marketing of service-concept working time attendance solutions, as they research a new business branch rather than a new line of service, but they should

probably be viewed more as a general example of a successful new product penetration. (Mark-magazine 1993)

However, one can notice that it documents two examples, the first of which is Hong Kong-based company VideoTech, a company that desired to expand its operations into Europe and the United States. By first moving into the American markets with the aid of efficient, company turn-over-tied advertising campaigns and the small earlier market share, the company successfully acquired a market share outside of the Asian markets, and soon branched into Europe by taking advantage of a previously relatively unused market segment, and thus increasing the company's annual turnover until it numbered a hundred times of what it was during the beginning of the nine-year expansion operation. (Mark-magazine 1993)

The second of these articles examines Giordiano, the new product line of a likewise Hong Kong-based, European-owned high-quality clothes designer that sought to capture a share from the growing clothes market of Hong Kong. Originally the marketing campaign was based on using celebrities in advertising and offering moderately-priced clothes to retailers around Hong Kong, but the marketing strategy was later changed because of an insufficient response from the customers, to concentrate on Giordiano's own brand shops, which offer high-quality, local products in a reasonable price. The cloth-brand has been a success and has provided high investment returns for example in Taiwan, Japan, Singapore, and in Hong Kong. (Mark-magazine 1993)

#### 2.8.2 Turvallisuus magazine 2002

The second of the two articles has been published in Turvallisuus magazine in the year 2002, and it presents the best known companies producing working time attendance solutions (the employer company, Tamtron Solutions, being among them) and examines the common features, legalities and the development of different systems. One of the examples presented in the article is the standardisation of the systems, which in practise means the preference of different system manufacturers to use the same technical features in their hardware, and the reduction of the mechanical calculation work in the working time attendance of the customer companies. (Vesimäki 2002, Työajanseuranta)

Another feature of interest presented in the article is the customisation of the systems, which makes it possible for the companies to follow, for example, different project phases and more complex working shift systems, the planning of which becomes easier through new working time attendance solutions. It should be noted that the customisation of the said systems is one of the

key features of the service-concept working time attendance solutions, although a feature that has been taken a step further by offering a complete service instead of a mere customisation (Vesimäki 2002, Työajanseuranta)

The other features that the Turvallisuus magazine article presents are also the comprehensiveness of the systems in relation to their price, their effect on work security, the possibility for an employee to pay his/her lunch with a key tag, the increase in the number of non-terminal stampings (the employees act of inputting his/her working time into the working time attendance system, usually via an input terminal) and the general positive reaction of the workforce towards the working time attendance systems. Of these issues the increase in the number of non-terminal stampings, the increase in internet based stampings and the increased amount of moving workforce in the modern working environment are aspects that should be studied when researching the concept of service-concept working time attendance, and with these notions the article would seem to support the development of the new service-concept working time attendance solutions. (Vesimäki 2002, Työajanseuranta)

The article also reports that in the modern working environment the workforce generally considers working time attendance as a tool for increasing working security instead of an unpleasant responsibility, and this would also support the development of the new solutions, as they have been planned for the convenience of both the employer and the employee, although their implementation would require the employer's and employee's mutual trust that is required for a person to form a positive attitude towards working time attendance. (Vesimäki 2002, Työajanseuranta)

The following contains the researched thesis studies, the first one of which handles the arrangement of new working time attendance in a dockyard operation company in Rauma.

### 2.8.3 Kivirauma & Miinin 2008

The first one of the thesis studies was undertaken by Arttu Kivirauma and Virve Miinin on behalf of Satakunta Polytechnic and Rauma Stevedoring Ltd, studying the prospects for the betterment of working time attendance in the company in question. As a summary, the research sought to study the prospects for arranging and purchasing an automatic working time attendance system for a large, docking operation-specialised company operating in west Finland, introducing the current situation (or the current lack, to be more specific) of the automatic working time attendance, the current situation of the company's working time attendance solutions, as well as the

possible technical and organisational changes brought by the new system. Upon considering the means and objectives of this study of service-concept working time attendance solutions, the most useful part of the Kivirauma's and Miinin's research would be the description of what advantages the company sought from the new system, and how it operated when making the decision of how to accomplish them, or how and for what reasons the researchers recommended a certain working time attendance solution. (Kivirauma & Miinin, 2008)

The most important factors that force the company to purchase a new working time attendance system would seem to be the employers' dissatisfaction towards the organisation of their work, the work inefficiency and the mistakes in working security, whereas the most important factors encouraging the company to the purchase were the changes in the organisation of the work, which were included into the work due to a recent change of ownership in the company, and the benchmarking company's, a Pori-based dock operation company named Hacklin Ltd's, positive experiences in the use of automated working time attendance solutions. Of these the forcing factors can be theoretically explained with the relative poor quality of the current work planning in the dockyard, because of which the employees sometimes received overlapping work shifts or did not receive work shifts at all, creating unnecessary idle time into the employees' working day. This information was not well received by the employers, who, perhaps understandably, did not like the fashion how they sometimes paid the employees for standing idle when there was important work to be done in the dockyard. (Kivirauma & Miinin, 2008)

In addition to the idle working hours, booking mistakes in work shifts are a safety risk due to the nature of the work place, because of the number of heavy equipment being moved around the dockyard, possibly injuring employees who are situated in places where they are not supposed to be, and in an evacuation situation an employer must know immediately who is currently working in the docks and where. These, combined with the factors mentioned in the last paragraph, could be considered internal agents of change in the company, whereas the outer agents (the agents not directly related to the actions and policies of the company, but rather, for example, to the global market situation in the field of dockyard operations) could be defined as the changing market situation and the tightened efficiency requirements in the international dockyard operations, an increase in the number of which could be expected due to Rauma Stevedoring Oy's ownership changing into a new, more global, corporation, which would require more efficient, safe and better managed dockyard operations to fulfil its customers' needs of international dockyard operations services. (Kivirauma & Miinin, 2008)

In the end, the thesis made clear the recommendations of the researchers, specifically recommended by Rauma Stevedoring Ltd, to purchase the working time attendance and access control solutions with same single purchase, and the demand that these systems should be as customisable as possible to meet the needs of the company. These demands are a direct result of the company's large working force volume, as well as the multiple work environments in which the company operates in. It is therefore quite possible that a typical company seeking to purchase working time attendance systems studies these same issues, of course depending on the nature, motivations and style of leadership of the company in question, and these issues should therefore be taken into careful consideration when researching and developing the service-concept working time attendance solutions. (Kivirauma & Miinin, 2008)

The following paragraph introduces the thesis study that was researched after Kivirauma's and Miinin's. It was produced by Joni Saaristenperä on behalf of Tampere Polytechnic and a building façade restructuring company on the prospects of arranging working time attendance.

#### 2.8.4 Saaristenperä 2009

The second of the thesis studies has been undertaken by Joni Saaristenperä on behalf of Tampere Polytechnic, and it studies the possibilities of arranging the automated working time attendance in building façade restructuring company. In his research Saaristenperä benchmarked, or compared, the solutions offered by four different sellers, counted the requirements set at the working time attendance by the company by taking advantage of cost/effectiveness ratios, and compared the different problems of each individual system. In the end of the research, the researcher gave a recommendation at the most suitable system to the company, as well as the logical reasons for this decision. This will be introduced in the following. (Saaristenperä, 2009)

This research can be considered to also provide information to the needs of prospective service-concept working time attendance solutions, as it discusses the company's interest in GSM-based working time attendance because of the irregular working time and changing workplaces resulting from the project-based working methods of the company. The research also presents the different problems associated with sending working time data, such as the continual electricity requirement of the working time attendance equipment, the possibilities of misuse, the following of different phases of work and the compatibility with other systems. The careful consideration of the problems would seem to indicate that service-concept working time attendance solutions would have good possibilities of being taken into account by companies that wish to purchase



working time attendance solutions, because the service-concept of the new solution would help the prospective customers to solve these problems.

A customer using service-concept working time attendance solutions would have to only fulfil the continual electricity requirements of the computers that the customer company's employees use to input their working time data, and these computers would not need to be even situated in the workplace itself, and they would also give the employers the option of following the employees' time attendance and work progress from their own work computers, also in real time. In addition, the compatibility with salary accounting systems would be guaranteed, as it is included in the model of better co-operation between working time attendance and salary accounting, and thus would not be the customer's responsibility. It should be noted, however, that this particular thesis is only a representation of a single company in a single purchase situation, so the presumptions presented above will not apply to the whole customer base of the employer company, and therefore, to the target group of the research on the marketing possibilities of service-concept working time attendance solutions.

(Saaristenperä, 2009)

The figure in the next page contains the main findings of the studies and articles mentioned above in a table form.

## 2.9 Theoretical framework

To summarise and examine the details of the information in the last page, one could construct a theoretical framework of the pieces of information mentioned in the previous paragraph, which can be found from page 26.

As one can see from the framework, the theoretical concepts associated with the new solutions (trust, customer satisfaction, outsourcing etc.) mentioned in the theory, as well as the earlier research on the working time attendance and new product launching, have been studied to provide background information for the adoption and development of new working time attendance solutions and to achieve an understanding of certain factors and problems that a typical company might consider when making purchasing decisions on the new working time attendance product or service,

Research	Main findings
Mark-magazine 1993	A company introducing a new product or service brand has to make a strong market penetration, in which the introduction communication has a crucial role.
Turvallisuus 2002	The new working time attendance hardware and solutions are becoming even more customisable and efficient, as well as accepted and taken advantage on in the companies using them.
Kivirauma & Miinin 2008	Although the nature of the company and it's workforce play a large role in the purchases of the new working time attendance systems, the customisation and package-deal options seem also important.
Saaristenperä 2009	Same as before, and in addition, a workforce- and information safety issues also seem to influence the purchasing decisions of working time attendance solutions.

Figure 4. The main findings of the earlier research

These concepts have also been studied to research the next level of information, with the aid of e-mail survey and interviews on the concepts that were studied in the earlier research, and this next level of information would be the target group's reaction to the theoretical concepts mentioned earlier. More of this is to follow later in this document.

In the information gathering phase, however, the main information collection tools are the research cases mentioned earlier, and naturally, the survey sent to the target group. The data collected at this way should preferably be as objective and reliable as possible, as well as reliable enough to be considered to represent the entire potential customer base of the new service-concept working time attendance solutions.



Figure 5. The theoretical framework

Ultimately, however, this data should be used on the study of the main research objective and of the research hypothesis. In the case of the latter, the data should be used to form as reliable information as possible of the question posed by the research hypothesis (whether the target group would be interested in purchase of the new solutions or not), and overall, of the main objective of the research, the marketing possibilities, prospects and challenges of the new service-concept working time attendance solutions. This level of information should be studied after the previous one, as demonstrated by the graph above, since the working method of the research aims to use the lower level research data (the earlier researches and the theoretical concepts) to produce reliable data of the next level of information, namely the research hypothesis, and ultimately, the marketing possibilities themselves.

## 2.10 Hypothesis

The research hypothesis is, that the customer base of Tamtron Solutions Oy would be interested in purchasing new service-concept working time attendance solutions. The primary sub-objective of the research is to confirm the validity or invalidity of the research hypothesis by studying the underlying theoretical concepts and working time attendance issues, and more importantly, the research target group's reaction to them.

## 3 The approach, methods and reliability of the research

The intent of the research was to approach the problem of the marketing possibilities of the new working time attendance solutions through the combined methods of quantitative and qualitative research. By this method it was attempted to ensure that a clear and truthful answer would be received to the question of the validity or invalidity of the research hypothesis as well, in addition to understanding the reasons and background of the target group's reactions, which contribute to research the primary objective, namely the marketing possibilities mentioned above, with the following research methods.

The primary research method of the thesis was chosen to be a quantitative survey that was sent to the customers of Tamtron Solutions Oy, and the secondary one was chosen to be a qualitative interview of random customers who had answered the survey. The main objective of the quantitative survey was to achieve a tangible and reliable answer to the question of validity or invalidity of the research hypothesis, and the goal set to the quantitative research was chosen to be clarifying of the data produced by the quantitative research, as well as helping to understand the

correlations behind the customers' answers and answer patterns, possibly in relation to the issues mentioned in earlier research.

The reliability of the research, in turn, can be considered to be relatively good, provided that the conditions of the contingency are met in the answering group of customers, or in other words, if the group of respondents can be considered to represent the typical customer base of Tamtron solutions Oy, and thus would represent the general reaction of the whole customer base as accurately as possible. The objective concerning the number of received answers was chosen to be 30 answers, due to the suggestion of the thesis research instructor, and also considering the fact that the survey would be sent to almost every customer of Tamtron Soltutions Oy, or at least to every customer whose contact information was available at the time. The whole volume of the target group was thus estimated to be 2000 Finnish companies.

In the beginning phases of the research, it was estimated that 100 answers would be required to form reliable conclusions, but due to the suggestion of the research instructor Hannu Pirnes, this number was later evaluated to be an overestimation. Another factor that had an influence on the decision of decreasing the number of required answers was the opinion of Bacon & Butler (1998, page 110), in which they expressed an argument that 15-30 answers usually fulfilled the needs of research reliability and the randomness of the target group.

The answers can be validly considered to represent the opinions of Tamtron solutions Oy's customers, because they had been specifically targeted to them, or at least to those whose contact information was available. One should note, however, that due to the nature of the services and products provided by the company, whose customer base consists of many different bodies, including industrial manufacturers, service providers and public bureaus. Therefore it was, at least in theory, possible to target the survey to any Finnish company using working time attendance solutions, but due to possible coherences or patterns in the customer base, it was initially chosen that the research would be sent to current customers only.

Exceeding the limit of 30 answers mentioned above was not considered likely to weaken the reliability of the research as a whole, but it was doubtful whether the answers exceeding the 30-answer limit would provide useful information towards the needs of the research. Should the number of answers have been less than 30, however, the reliability of the research would have been re-evaluated. If the received answers would have numbered less than 30 but more than 20, then the reliability of the research data would have been weakened by an amount that would have been directly proportional to the number of answers that would have been required to

reach the 30-answer limit. Should the number of received answers have been less than 20, the research data would have been considered too unreliable to establish conclusions on the marketing possibilities of the new working time attendance solutions.

#### 4 The empirical research

The following contains specific details of the empirical research, beginning with the description of the research itself.

##### 4.1 Description

The survey form was designed in co-operation with Tamtron solutions Oy, and after having the form accepted by the company, as well as confirming their wish to leave the target companies unaware of each others' identity, collection of the target group's contact information was begun. This took approximately five to six weeks.

The company's preference to keep the companies in the target group unaware of each other's identities was taken into account in the phase of sending the surveys, and this was assured by using the hidden copy-feature of the mailing system. At the same time it was researched if the companies in the target group represented most sub-sectors of the Finnish corporal-world, and this seemed to be true, at least when judged by a basis of brief research.

However, in the next phase, as answers began to arrive, the research became problematic. The number of target group companies whose e-mail address was accessible was confirmed to be significantly smaller than had been initially assumed, and thus the required limit of 30 answers was not accomplished in a 3-week period. Only 15 answers had arrived after this time, and this number was deemed too low to fulfil the reliability requirements of the research. Thus, the decision on an expansion of the target group was made at this time.

After some consideration, the expansion was chosen to include a number of prospective customers of the company, meaning customers who had shown interest in the products of the company, but had not purchased them yet, or who had been determined as possible future customers, and the survey form was adjusted towards the needs of the changed target group in such a way, that the one sent to the prospective customers did not contain questions about the products of the employer company, but rather questions about the customers' generic reaction to and satisfac-

tion towards the working time attendance systems that they owned (see Attachment 9. for more information, especially the first three questions). The analysis section contains more information on the backgrounds and the effects of the change.

With the aid of the prospective customers a total number of 25 answers was received. This did not yet fulfil the requirement of 30 answers, but was deemed acceptable due to better reliability compared to the answers of the unchanged target group. The acceptability and the effects of the change of adjustment of the target group were also evaluated and analysed at this time.

After the quantitative data had been collected, the collection of qualitative data was initiated, which, in practice, meant the arranging and execution of the interviews. The target group of the interview was the number of companies who had answered the survey, as had been decided earlier, and more specifically the companies that were situated less than three hours travel from the employer company's location, mainly because of time and expense restrictions. The initial questioning only resulted on one interview, which was changed into a telephone interview because of restrictions of the interviewer's and interviewee's schedules. However, later one of the companies that were not included in the interviews' main target group unexpectedly agreed to give a telephone interview, thus both interviews were executed by telephone, instead of face-to-face as initially planned.

The questions on the survey were based on theoretical concepts that were closely tied with the specific features of the new working time attendance solutions. The following section contains the questions, followed by a brief analysis of the interviews themselves (See attachments 5 and 6 for more information on the survey and interviews).

Questions one to three in the survey were formulated to measure the trust and satisfaction that the target group felt towards Tamtron Solutions Oy, and after the expansion of the target group, towards the working time attendance hardware supplier in general. This trust was measured at the interest of studying whether the companies in the target group would be ready for more extensive co-operation with the employer company, a co-operation which would require trust.

Question four, and to a lesser degree, question 10 were added to the survey to study the target group's reaction to the advantages of an efficient working time attendance, or in other words, to study whether the target group sees value in investing in more efficient, modern, and more expensive working time attendance solutions. This particular aspect was studied because the service-concept working time attendance would be marketed as more efficient, modern and more

expensive solutions, and thus the customers interest or the lack of thereof would be reflected to the marketing possibilities of the service-concept working time attendance solutions.

The next questions five and six were added to the survey to measure the target group's reaction to working time and efficiency, meaning whether it is important that an individual employee works exactly her designated time in a day, or that she works according to her productivity instead of a strict schedule, and generally, if the companies in the target group trust their employees' honesty in the reporting of working time data, even if they were given more freedom in the reporting process.

These questions were asked because of the free structure of the new working time attendance solutions and for the employees' responsibility that would be included in the concept of the new solutions, thus studying whether the target group would be ready to grant the greater freedom in working time data reporting to it's employees on the purchase situation of service-concept working time attendance solutions.

Questions seven and eight were added to the survey to measure the target group's reaction to outsourcing, namely the outsourcing of working time attendance processes, as well as storing the working time data into an internet-based database. This information was researched mainly because these functions are some of the key features of the new service-concept working time attendance solutions, and thus a negative opinion of these features would also weaken the marketing possibilities of the new working time attendance solutions.

The last group of questions that consists only one question, namely question nine, was added to the survey to measure the target group's reaction to the better co-operation between salary accounting and the working time attendance. This would be one of the key features of the new working time attendance solutions, and thus, the target group's negative reaction to aforementioned issues would also hamper the marketing possibilities of the new working time attendance solutions.

However, in addition to the aforementioned survey, the information gathering was also accomplished via the two telephone interviews. These interviews were executed to gather additional information on the target group's reaction to the theoretical aspects associated with the concept of the new working time attendance solutions, as well as to inquire about the theories and concepts presented in the earlier research.



The concepts and theories included four main studies, the first of which was an article published in the Mark-magazine in 1993. In this article a study by Iiro Rossi was cited, theorising that a company that desires to launch a brand new product line must invest heavily on the introduction communication, in order to reach a foothold from the existing market. The article also mentioned two case-examples, but for more information on them, see Mark-magazine 1993, under Earlier researches. This theory on the importance of investment on introduction communication was not present in the interviews, but by studying the customers' answers to the questions on the future purchasing decisions of working time attendance solutions, one would theorise that a successful and notified introduction to the market would be needed in the case of new working time attendance solutions.

The second article was published in Turvallisuus-magazine in the year 2002, and it introduced the common technical and functional features of working time attendance hardware and solutions, as well as their recent development. The article mentioned that working time attendance systems are becoming more customised and customisable than before, and that the companies using them have begun to see them as a tool towards achieving better work effectiveness and ensuring workers' rights, instead of a mere unpleasant responsibilities, and have also begun to take advantage of their more advanced features, such as keytag-purchased dinners. In the telephone interviews the interviewees did not give information that would support the last statement, however, but they did mention that the new advanced systems did or could make the company operation more efficient, therefore partly agreeing with the article.

In addition to these articles two thesis studies were introduced in the Earlier studies section, one by Kivirauma & Miinin from the year 2008, and another from Saaristenperä from the year 2009. Both studied the implementation of working time attendance and made recommendations on the technical and functional properties of the desired system. The selection principles of these systems would be the most important factors in these particular thesis studies, as they both illustrate possible factors that a typical company has to consider when it is planning to purchase new working time attendance systems, which could be the new service-concept working time attendance systems. In the case of these thesis studies, the customisation options and the package-deal options seemed to play a large role, although these were greatly influenced by the nature of the company, the workforce and the safety issues that are included into the company's operating environment.

The issues that influence the purchasing decision were mentioned in the customer interviews, however, as both companies found that their current working time attendance systems did not

support the companies' operating processes with a desirable level of efficiency, thus indicating the customers' need for system customisation. The companies also mentioned that their workforce has mainly a positive view on effective working time attendance in general, thus correlating with the Turvallisuus-magazine article, and yet depending on the nature of the working time attendance in relation to the nature of a customer company's operation, thus correlating with the theories presented in the thesis studies.

#### 4.2 Analysis

The inter-research factor that has influenced the research result most is the addition of the prospective customers to the target group of the research. This addition was done to achieve a required reliability of the research data of the quantitative research, and it was deemed acceptable based on the following three reasons.

First, due to the nature of the products and services of Tamtron Solutions Oy, the companies in the group of prospective customers were deemed to represent the sufficiently same branches of business as the existing customers. As mentioned in Introduction section, the company's customer base consists of a number of different companies from many different operating environments.

Second, the company's prospective customers were deemed to form a potential target group for the marketing of the new service-concept working time attendance solutions, because it would be quite probable that the company would market the new solutions outside of its existing customer base. This would not only be probable, but also actually a potential environment for the growth of the customer base of Tamtron Solutions Oy.

Third, the hypothesis was not formed to specifically concern the company's current or prospective customers, since the hypothesis only concerned the customer base as a whole. Therefore it can be justifiably claimed that the prospective customers should have been included into the research target group from the beginning.

However, the changing of the nature of the qualitative interviews from face-to-face into telephone interviews was theorised not to have an effect on the answers that were received. The interviews were designed to be brief and supporting qualitative research from the beginning, so therefore alterations in the exact nature of the interview was not theorised to have an effect on the data that they provided, because the interview questions were not changed in a manner that the nature of the interviews was.

However, linked to the reliability issue mentioned above is the theoretical framework of the study itself, namely the data derived from the survey and the interview, and the exact relation of the information derived from them on the main objective of the research, namely on the marketing possibilities of the service-concept working time attendance solutions. As the theoretical framework details the relation of the theoretical background data into the data derived from interviews and the survey, it also details the way the research- and background data is studied and analysed to produce reliable information on the issues linked to the tertiary and secondary research objectives, which in turn is used to study the primary sub-objective and primary objective of the research, which are the validity of the research hypothesis and the marketing possibilities of the service-concept working time attendance solutions respectively.

Regarding the theoretical concepts associated with the new service concept (i.e. trust, satisfaction, outsourcing and alike), the research uses the e-mail survey to study the target group's reaction to these concepts, and thus endeavours to determine the market conditions and possibilities for the marketing of the new solutions. In the case of interviews, however, the research uses the same method in regards to the issues associated with the earlier researches, as well as using the interview material to better analyse the data provided by the customer survey.

As the empirical study itself has been documented and analysed, the following section therefore documents the results of the study and draws the research conclusions.

## 5 Conclusions

The following contains the findings of the research, as well as the logical conclusions following from them.

### 5.1 Findings

The quantitative research undertaken with an e-mail survey returned 25 answers, of which the conclusions detailed in the following chapters were formed. The answers themselves can be found from the Figure 6, and their averages can be found from Figure 7.

As one can perceive from the table above, the received answers represented many different viewpoints on different issues, and the customers presented a number of different reactions to-

wards the arguments presented in the survey. The blank spaces in the table represent empty answers, as some customers chose not to react into certain arguments.

The table in the page 37, in turn, contains the averages of the answers to each argument in a graphical form to ease the perception of the answer patterns and correlations, and the red vertical line in the table represents averages 4.5-5.5, meaning that the average in question indicates from very weak to nonexistent correlation. The averages set outside this line can be perceived to represent a correlation either to an agreeing (at the right side of the line) or disagreeing (at the left side of the line) pattern.

As one can perceive from the graph in the page 36, the questions from one to three seem to produce only a very weak to no correlation. This would seem to indicate that the target group has either produced a neutral or at least a non-united reaction on the working time attendance service provider. This could mean that the target group has no opinion worth mentioning of a working time attendance service provider, although judging from the given answers, this would seem unlikely, and judging by the very small number of neutral answers given to questions one to three, one could more likely assume that the research sample contained both satisfied and dissatisfied customers at an relatively equal amount, although not necessarily equal in terms of numbers or the intensity of the reaction alone, but rather the combination of the two.

Thus it would seem that the opinions of the provided service are quite mixed in the field of working time attendance solutions market, although when taking into account the multiple working conditions, the different natures of diversity of systems available, this might not be surprising.

In question four, however, one can perceive relatively strong correlation to the positive answers. This would mean that the target group mainly perceives working time attendance as a operation process, an investment which can save the company both time and capital. Actually only one customer disagreed with this argument.

Question	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Answerer										
1.	7	7	7	9	8	8	2	1	9	8
2.	3	3	3	1	4	7	2	2	8	5
3.	6	7	6	8	8	1	1	6	9	6
4.	8	8	7	8	9	4	2	2	8	8
5.	1	7	1	6	5	6	1	9	9	
6.	9	9	8		8	7	4	5	8	7
7.	1	1	1	8	8	8	6	8	9	
8.	6	1	3	9	7	7	6	1	6	
9.	3	2	3	8	7	7	7	7	7	5
10.	2	2	3	8	8	4	6	7	6	7
11.	9	7	7	9	9	7	2	2	6	8
12.	8	8	8	9	8	7	8	9	9	9
13.	8	6	9	8	8	2	1	2	3	8
14.		1	1	8	9	4	6	2	8	9
15.	8	9	8	8	8	8	4	3	6	8
16.	7	4	7	5	8	6	5	5	8	5
17.	2	9	1	9	7	6	1	5	9	9
18.	8	8	6	8	8	3	1	2	8	8
19.	8	8	7	8	8	3	3	4	6	9
20.	2	2	2	9	6	6	5	7	9	7
21.	8	8	8	9	9	8	9	9	9	8
22.	8	6	7	7	8	7	4	5	3	7
23.	6	4	6	7	8	8	7	4	7	8
24.	7	5	5	7	5	5	5	4	6	5
25.	2	2	2	8	7	7	3	6	7	7
Average	5,7083333	5,36	5,04	7,666667	7,52	5,84	4,04	4,68	7,32	7,3181818

Figure 6. The results of the e-mail survey

This would seem to support the theories presented in this research (See Earlier Researches, especially the study by Vesimäki) that indicate that both employees and employers are beginning to perceive the working time attendance function as a developable process instead of an unpleasant and time-consuming responsibility that was however required to keep the company operational. The customers who expressed dissatisfaction on working time attendance by giving a negative reaction to the previous three questions, or more specifically their need for a better system, could have also influenced the result, however.

Question five, however, showed a relatively strong correlation as well, again with only one customer disagreeing with the argument. This would seem to indicate that the employers generally trust their employees and their honesty, and do not believe that the employees mislead the company in the process of reporting the working time data.

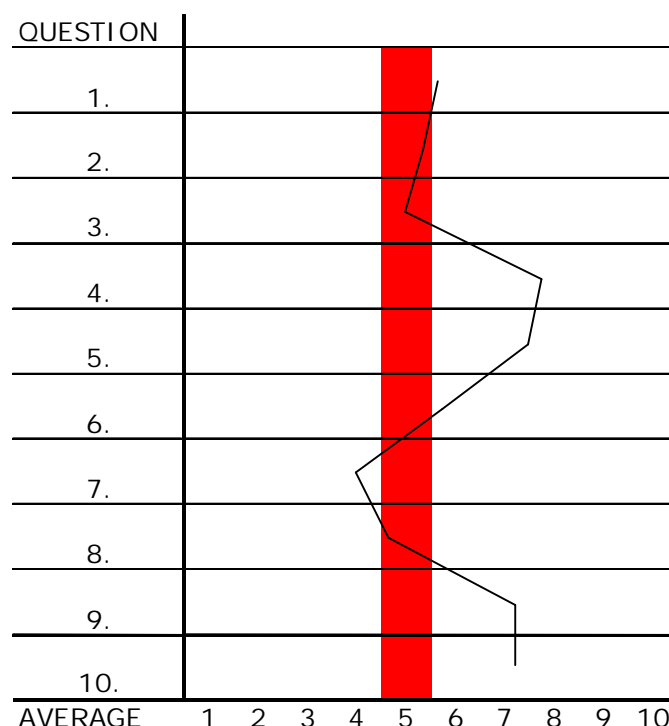


Figure 7. The results of the e-mail survey in a graphic form

This could be theorised to be quite dependant on the nature of the company and the workforce, as i.e. in a smaller company the workers know each other quite well, often from a time span of numerous years, and thus have little mistrust towards an individual worker, whereas in a large company with a large and unstable workforce the trust between employees and the employers, or even between employees themselves, could be theorised to be weaker compared to a smaller company. Judging from the survey question and the received answers, however, the target group would seem to trust the honesty of its workforce.

Question six also showed positive correlation, although to a lesser degree than the last two. This would indicate that a small majority of employers consider individual employees' work results to be more important than punctuality in working times. However, the opinions show quite an amount of dispersion, and the positive answers are not as strongly positive as in previous questions, but still the correlation is evident, and thus the nature of the target companies and its effect on the result could be questioned again, as large, international companies can be theorised to adopt a completely different policy in the issue than old, conservative and relatively unchanging businesses, perhaps owing to the supposed national feature of Finnish punctuality as well.

The question seven provoked a large number of negative reactions, and thus the majority of the customers would seem to think that working time attendance should not be outsourced into a service-form. This could be because the companies desire to keep their workforce inside the company where it is more easy to supervise, or perhaps because they dislike dismissing their loyal workers, but more importantly, it would seem that the target group doesn't perceive much value in outsourcing the process of working time attendance, or perhaps it perceives the outsourcing as an unnecessary responsibility or cost that does not benefit the outsourcing company enough to make the action profitable.

Question eight showed little to no correlation. This would mean that the target group is hesitating and has many opinions on moving its working time attendance to the internet. The nature of the question could have had an effect on the answering patterns here, as the target group had not necessarily been fully aware of the effects of transferring working time attendance to the internet, despite the server-issue mentioned in the question itself (see Attachment 9), or again, some of the less IT accustomed companies might see the transfer as mere extra work and costs.

Questions nine and ten did show a positive correlation, similarly to the questions four and five. This would seem to mean that the target group supports more efficient co-operation between working time attendance and salary accounting to accomplish better cost effectiveness, and perceives working time attendance as an important process, purchases of which the company cannot refrain from even because of an economic crisis. The question of more efficient co-operation between working time attendance and salary accounting could be seen as a sign of slight dissatisfaction to the current co-operation of these processes, or it could also be that the customers perceived the more efficient co-operation as a simple way to save work and money. The question of the current economic crisis is an interesting one as well, not only because none of the answerers disagreed with the insignificance of crisis towards the purchases of the working time attendance solutions, but because the answers they supplied may, in their part, reflect the general reaction that the target group provoked on the working time attendance and the economic crisis in general.

To summarise, one could deduct that the target group sees working time attendance as important enough not to be subjected to immediate budget decreasing, or as mentioned by Leppäkoski (2008-2009), the target group could actually try to make its companies even more cost effective during an economic crisis, or it has more time to invest in non-vital processes during the time when the state of the economy imposes difficulties for the operation of the corporate sector.

## 5.2 Conclusions

When observing the answers of questions one to three, one should remain critical of the results, mainly because of the changing of the target group to consist also of the Tamtron Solution Oy's prospective customers. The result should therefore be considered an example of a state of general customer satisfaction in the target group, rather than the target group's satisfaction to the company specifically. Although the first 15 answers (the ones given by the current customers of Tamtron Solutions Oy) seem to give a positive indication on a customer satisfaction, and the interview received from a random customer company would seem to correlate with this assumption, although the number of answers is quite small by this regard, the reliability of this assumption should be questioned. One should note, however, that any weak customer satisfaction indicated by prospective customers specifically is not necessarily a negative signal at the marketing possibilities of the new service-concept working time attendance solutions, as a weak customer satisfaction can indicate new sales possibilities for working time attendance solutions amongst the competitor companies' dissatisfied customers who seek a new working time attendance service provider.

The questions four and five (see Figure 6.), however, seem to show clear positive reaction, which means that, in general, the target group's employers trust their employees in the reporting of the working time data and would quite likely to be ready to give them more freedom in the matter and are ready to develop their working time attendance processes to increase their productivity. This would strengthen the hypothesis, in addition to the weak, but existing, correlation of question six.

The negative reaction that the target group gave in regard of question seven would be a weakening factor of the research hypothesis. It would seem that the target group would not prefer to change the working time attendance system into a service form, but would prefer the old working time reporting terminals instead. The interviews would seem to support this assumption as well. However, the positive correlations of questions nine and ten would seem to strengthen the hypothesis.

The information received from the interviews would seem to support the assumptions mentioned above. The interviewees considered working time attendance as important, but still a marginal process that should be kept operational to support more important processes. The readiness for change seemed to be evident, most likely due errors in the current systems, but it is doubtful



whether this readiness would support the purchase of service-concept working time attendance solutions, should the data provided be reliable.

As mentioned in the analysis section, the changing of the target group could have had an influence on the reliability of the results, but mainly because the added companies would have most likely represented the likely target market for the new solutions, the influence should not have weakened the reliability of the research by an unacceptable amount, even if the current customers do provide the employer company with more business than the prospective ones. In fact, it is quite likely that the introduction of the new solutions would be influenced by similar factors as any new product, which are, according to Avlonitis and Papastathopoulous (2006, 147-148), the understanding of customer needs, the commitment to fulfil them and the exact control of the budget. In addition, the factors affecting the failure of the launching of the new product are incorrectly estimated expenses, strong competition, faulty product and insufficient investment in the initial marketing and sales (as Iiro Rossi theorises in his research).

According to the quantitative and qualitative information, as mentioned earlier, received through the survey and interviews, the target group would purchase more efficient and well operating working time attendance solutions, although not necessarily the service-concept ones (see answers to question seven in the survey). It could be that, instead of the Tamtron Solution Oy's ability to produce a customisable working time attendance service, more important factors in the long term would be the company's ability to guarantee the reliability of the products and services to the customer (see answers to questions one to three and the interviews), the ability to produce customised solutions based on the individual needs of the customer (see the interviews, previous thesis studies and the magazine articles) and the ability to maintain long and mutually beneficial customer relationships (see the interview).

Therefore, when referring to the primary objective of the research (the marketing possibilities of the new working time attendance solutions), the new solutions would need to incorporate and enhance these factors of the working time attendance solution business, which the new service-concept solutions portrayed in this research do not incorporate sufficiently, or at least in the case of the company's customer base as a whole.

Therefore, in its current form, the hypothesis is invalid.

To further consider the marketing possibilities of the service-concept working time attendance solutions (which are related to the main objective of the research), however, one could summa-

rise the information above by mentioning that the marketing of the new solutions should use the perceived effectiveness, large number of customisation options and ease-of-use of the new solutions to their advantage, as well as to invest heavily in the introduction communication through different marketing channels, should the company consider the marketing of new service-concept solutions profitable enough for selling to customers. The concept of the service itself should also possibly be changed, especially regarding the outsourcing necessities and options from the customer's point of view to further meet the requirements of the customer base, thus bringing the possible investment in the new solutions to return a necessary amount of capital from sales.

The next section contains the additional research questions and options for a possible internal research.

### 5.3 Additional questions/research options

If service-concept working time attendance solutions would be developed in the future in some form or another, one should keep in mind that this particular research was directed towards the whole customer base of the company and to a selected number of its prospective customers. Therefore one should ask whether the new solutions would have potential markets in a more narrowly defined market segment, for example among consulting companies, which possess a large number of moving employees and thus a greater need for service-concept working time attendance solutions than an average customer. In addition, a more detailed study on the customer base of Tamtron Solutions Oy and its purchase preferences could reveal certain patterns that would be helpful in identifying a prospective customer group for the new solutions. (Levälä 2008)

Furthermore, as one can see from Figure 6, some customers had a positive opinion on the outsourcing of working time attendance. The information on the companies had been relayed to the Tamtron solutions Oy on their request, but will not be revealed in this document in order to protect the company's business practises.

In addition, one should note that this particular research was only studying the market condition for the new working time attendance solutions, not the condition inside the company. Therefore it is recommended that the company makes a complete internal research that studies the issues detailed in the following, possibly among other factors that would have an influence in the development and marketing of the new working time attendance solutions.

The following figure contains questions that could be studied by means of an internal research.

- 1 Does Tamtron Solutions Oy possess the required resources for the development of the new system?
- 2 How much would this research require resources exactly?
- 3 Can Tamtron Solutions Oy efficiently take advantage of it's experience and key skills while working with these kind of systems?
- 4 What would be the schedule of the development?
- 5 What kind of information security issues would the new system face?
- 6 How could Tamtron Solutions Oy ensure that the new system would not cannibalize the market segment of the company's already existing products?

Figure 8. Possible key questions for an internal research

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## Attachments

### Attachment 1. The e-mail survey translated into English

Greetings!

I am a student in Laurea University of Applied Sciences in Leppävaara currently preparing his thesis study, and thus contact You on behalf of Tamtron Solutions Oy. Our company would like to hear Your opinion on the products it has delivered to You, including i.e. working time attendance hardware, keytags and working time attendance services; and of the general role of working time attendance in the operation of Your company.

That answers that You give will produce useful material for the analysis of the thesis study, which Tamtron Solutions Oy will use to develop even more efficient working time attendance solutions that will serve the needs of Your company even better than before.

The answering is done by giving Your opinion on the following ten arguments that concern working time attendance. The easiest way to do this is to reply to this mail and to fill out the blank spaces reserved for the answers. The answer choices are the following:

1 = Completely disagree

2 = Disagree

3 = Somewhat disagree

4 = Slightly disagree

5 = Can't say/No opinion

6 = Slightly agree

7 = Somewhat agree

8 = Agree

9 = Completely agree

You can also leave comments and open answers in addition to numerical answers. The information that you supply will be processed confidentially and anonymously.

Here are the arguments:

1. I am satisfied to our current working time attendance system.

Answer:

2. Our working time attendance hardware has lasted well in use. In addition, Tamtron Solutions Oy has made all repairs and possible reconfigurations with haste and expertise, if there has been a need for such.

Answer:

3. In my opinion, our working time attendance system is flexible, and will serve our company's needs even in the case of changing working shifts and -conditions.

Answer:

4. By optimizing working time attendance, like any other corporal process, a company can save time and money.

Answer:

5. I trust on the honesty of our employees in the making of working time stampings, and I do not believe that they "play hooky", at least to an extent that it would matter.

Answer:

6. Small slippings and flexibilities in the working time of our staff are not harmful. The main thing is that the work gets done well.

Answer:

7. Working time attendance could be outsourced into a solid-price service, so that our campony coul concentrate more on it's core competencies.

Answer:

8. I think that our working time attendance process could be moved into the internet, so that our company would not need to purchase a separate server.

Answer:

9. Working time attendance and salary accounting should be better adjoined together, so that a better cost efficiency could be reached.

Answer:

10. The current economic crisis has no effect on our company's purchases of working time attendance solutions, as working time attendance is a vital process to our organisation, of the quality of which we cannot bargain from.

Answer:

Thank You for Your time, and good business to You and Your company!

Tommi Vihavainen  
Tamtron Solutions Oy



#### Attachment 10. The summarised results of the research interviews

Interview 1. A small (less than 20 employees) company in the manufacturing industry, and a prospective customer.

The interviewee told that the company uses keyboard-operative working time attendance system, to which the employees punch in the used working time, the machine (or machines) that they have operated as well as the products that they have produced. The system in question has been in use for one year.

The interviewee did note, however, that he was slightly dissatisfied to the system, mainly because it had many sorts of small flaws and malfunctions that caused i.e. a loss of working time data and mixed workshifts. He also told that this dissatisfaction can also be seen among the employees, even if the general stance towards working time attendance is positive and accepting. The company apparently uses manual working time attendance (meaning hour cards) in addition to stamping terminal to keep the working shifts and data under control.

The interviewee also pointed out that working time attendance was but a side-process in their company, a one that is not really a part of their core competence, but also one that has to be kept operational. He did also note that an efficient working time attendance could help them plan their manufacturing volumes better, but because of the inefficiency of the current system and the unreliability of the data it produces, the company has been unable to implement this aspect of working time attendance just yet.

The interviewee did mention in the end, that if the current situation will not be improved, then the current system will be replaced with a new one. Of the exact nature and the possibilities of the new system he could not say a thing yet, and reckoned that the company will most likely purchase "a tool that best gets the job done".

Interview 2. Medium large (20-100 employees) company serving manufacturing industry, current customer.

The interviewee reported that his company uses a quite common combination of stamping terminal and ID-tags, in which the tags also work as keys to the company building, and upon stamping register the employees working time directly into the company database. He also reported that this was the only function of the system that his company really needed, as their workforce was not very mobile and the work was not truly project based, so there was no need to more "advanced" working time attendance functions.

The interviewee also told that working time attendance was but a side-process to his company, a one to which it doesn't really pay much attention to. They would (naturally) prefer that the process in question would run smoothly and without delays, as this saves the company's time and resources to core important tasks.

All in all, the interviewee had no complaints on the current system, although he did mention that a function that would allow the previous stampings to be monitored more easily would be quite appreciated for convenience reasons. He did also ask that the controls of the monitor would be made easier to understand, or that an info-button would be added to the terminal, as this would make the system serve the company even better.

## Sources

Avlonitis G. & Papastathopoulou P., Product and Services Management, 1st Press, SAGE Publications Ltd, Great Britain, 2006

Bacon F. & Butler T., Achieving Planned Innovation, 3rd Press, The Free Press, United States, 1998

Drucker P. & Maciarello J., The Effective Executive in Action: A Journal for Getting the Right Things Done, 1st Press, HarperCollins books, United States, 2006

Fennia-magazine, Keskity ytimeen – ulkoista muu, 1/2006

Homepage of Tamtron Solutions Oy, accessed 1.6.2009  
<http://www.tamtronsolutions.fi/>

Kivirauma A. & Miinin V., Työajanseurannan parantaminen Oy Rauma Stevedoring Ltd:ssä, thesis study, Satakunnan Ammattikorkeakoulu, Logistiikan koulutusohjelma, August 2008

Mark-magazine, Esittelyviestinnällä on uuden tuotteen menestymisessä ratkaiseva rooli, 1-2/1993

Online article on the basic characteristics of the working time attendance, accessed 1.6.2009.  
<http://www.tyoajanseuranta.fi/>

Online article on the salary accounting, accessed 1.6.2009.  
<http://www.itella.fi/kokonaisratkaisut/talousprosessienulkoistaminen/palkkahallinto.html>

Online article by John Quelch, accessed 1.6.2009  
[http://discussionleader.hbsp.com/quelch/2007/11/how\\_to\\_build\\_a\\_b2b\\_brand\\_1.html](http://discussionleader.hbsp.com/quelch/2007/11/how_to_build_a_b2b_brand_1.html)

Online article, Cindy Waxer, Tippit Inc., 2009, accessed 12.9.2009  
<http://www.hrworld.com/features/new-dawn-time-attendance-060308/>

Pirjo Vesimäki, Työajanseuranta, Turvallisuus-magazine, 5/2002

Saaristenperä J., Sähköinen työajanseuranta julkisivusaneeraus yhtiössä, thesis study, Tampereen Ammattikorkeakoulu, Rakennustekniikan koulutusohjelma, April 2009

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